NOVA SCOTIA

Nova Scotia Department of Natural Resources

Business Plan 2009-10

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1 Message from the Minister and the Deputy Minister

We are pleased to share with you the 2009-10 Business Plan for the Department of Natural Resources. The past year has been difficult for the province's resource sectors with the world-wide economic downturn, which has resulted in a reduction in demand for natural resources and lower commodity prices. The state of the economy in the upcoming year will continue to present significant challenges for our resource industries and for the department.

One goal in the *Environmental Goals and Sustainable Prosperity Act* is that the Province will adopt strategies to ensure the sustainability of its natural capital. Given the linkages between different areas of natural capital, a single, comprehensive natural resources strategy has been undertaken to address four components; forests, minerals, parks and biodiversity. Completion of the strategy is one of the department's key priorities.

The first phase of the three-phase approach, citizen engagement, was led by Voluntary Planning and completed in 2008-09. The second phase, stakeholder engagement, is being led by panels of expertise and a Ministerial Steering Panel. The final phase, which is the creation of the actual strategy, will be completed in 2010.

We want to emphasize that many other activities will be undertaken as part of the department's ongoing operations. These activities include forest health-related work, such as fighting forest fires and dealing with infestations of insects and diseases that attack the province's forests; enforcing the natural resources related legislation that is the responsibility of the department; delivering a range of geoscience, wildlife, forest and Crown lands related programs; operating our provincial parks system and our wildlife park; and enhancing our system of recreational trails throughout the province. Many Nova Scotians are already familiar with these programs, and either use them directly or benefit from them indirectly.

Working in partnership with our stakeholders, the public and department staff, we look forward to successfully completing the important economic and environmental initiatives that are planned for the next year.

Original Signed By

Honourable John A. M^{ac}Donell
Minister, Natural Resources

Original Signed By

Peter C. Underwood
Deputy Minister, Natural Resources

2 Mission

The mission of the Department of Natural Resources is "to build a better future for Nova Scotians through responsible and sustainable natural resources management."

3 Planning Context

The department has broad responsibilities relative to the management of Nova Scotia's forest, mineral, park and wildlife resources and the administration of the province's Crown land. Management in the context used here includes resource conservation, protection and development. In order to properly manage these resources, the department must recognize and take into account several key factors that significantly affect the province's resource sectors.

3.1 Resource Sustainability

In 1987 the United Nations Commission on Environment and Development (the Brundtland Commission) reported that economic development often leads to a deterioration, not an improvement, in the quality of people's lives. The Commission also provided the most commonly used description of sustainable development. Sustainable development, according to this definition, is "development which meets the needs of the present without compromising the ability of future generations to meet their own needs."

Managing our renewable resources and non-renewable resources in a manner that is consistent with this concept of sustainable development is critical. Our natural resources provide significant material and non-material benefits to Nova Scotians that range from social, cultural, heritage and recreational to economic and environmental benefits. The province's natural resources must be managed on a sustainable basis and their possible uses, which can change over time, must be considered and taken into account when decisions are made. These decisions can have effects for decades so they need to be made based on complete and evidence-based scientific information.

3.2 Public Awareness and Understanding of the Resource Sector

A lack of awareness of the extent of the province's foundation industries and how they operate is a concern. Some people believe that the forest and minerals sectors only include wood harvesting and mineral extraction. However, these sectors are much broader than that. These sectors directly support activities related to mineral exploration, forest management services, silviculture, geoscience, surveying and

mapping, environmental planning, transportation of raw materials and manufactured products and manufacturing. The resource sector needs sophisticated machinery and equipment, high technology products and computers to operate and compete globally. Skilled labour is needed to provide these services.

Although economic conditions for different resources are often cyclical, the jobs created within the various resource sectors have often been relatively highly paid and long term. Manufacturing, fabrication and assembly add value to the natural resources found in the province. Nova Scotia's mineral and forestry industries are among the province's leading industries in their application of advanced technology as companies make investments in technology to minimize costs, increase productivity and improve environmental performance.

3.3 Shifting Demographics, Public Values and Land Ownership Patterns

There are strong public expectations and numerous competing demands for the use of our limited public land and the resource base, and how it is managed. There are continuing demands to add to the provincial Crown land base by acquiring properties with specific characteristics valued by Nova Scotians. There is also a keen interest in our forests and our other natural resources and deeply-held views about how they should be used and managed. The high level of participation in the citizen engagement meetings hosted by Voluntary Planning as part of Phase 1 of the natural resources strategy is evidence of the public's interest.

Nova Scotia is the second smallest province, in terms of land mass, and just over a quarter of this land is provincial Crown land. This is also the second lowest proportion of Crown lands of all the provinces and territories, with only Prince Edward Island having a lower proportion. Over the last two decades the population has become increasingly concentrated in the central part of the province in Colchester, Halifax, Hants and Kings counties. In most other counties the population has either declined or has remained stable.

The vitality and success of many rural communities depends on them being able to provide their residents with economic opportunities, access to essential services, and a quality of life that will attract new people and retain those already living there. The predominantly rural nature of the resource sector makes it one of the key sectors for supporting healthy rural communities throughout the province by providing economic activity in areas of the province where alternative opportunities are not readily available.

The following questions give some idea of the difficulty in determining the actual effects of changing demographics and land ownership pattern shifts. With just under three-quarters of the province privately owned, the type of ownership and their preferences will influence future land uses. Will land ownership become concentrated in the hands of corporations or will land be owned by many individuals in small parcels? Will land owners live in rural areas near where the land is located or will owners live in urban areas away from the land they own? Will an increasing amount of land be owned by non-residents? Will there be a difference in ownership patterns for coastal vs non-coastal properties?

Will the population of the province continue to concentrate in urban areas or will the population of rural areas eventually stabilize or even start to increase again? Will the total population of the province start to decline or will there be a drastic growth in our provincial population? Will the provincial population become increasingly concentrated in the metro Halifax area? Changes in the rural / urban split, increases or decreases in the total population and changes in the age distribution of the population may have significant effects on how natural resources will be used and on the types of programs and services the public will desire in the future.

3.4 Climate Change and Weather

This department, and the resource sectors it manages, can be profoundly affected by weather events and climatic conditions. If predicted changes in climate parameters, such as average temperatures, precipitation levels, sea level, storm frequency and storm intensity, actually materialize there is a high likelihood that the department's operations and its budget requirements will be drastically affected.

The Fourth Assessment Report "Climate Change 2007" was released by the Intergovernmental Panel on Climate Change (IPCC) in November 2007. An associated summary document "Climate Change 2007: Synthesis Report Summary for Policymakers" warns that "Warming of the climate system is unequivocal..." and that "Observational evidence .... shows that many natural systems are being affected by regional climate changes, particularly temperature increases." The summary also notes that "A wide array of adaptation options is available, but more extensive adaptation than is currently occurring is required to reduce vulnerability to climate change. There are barriers, limits and costs, which are not fully understood."

Forest fires, insect infestations, wildlife and forest health and park attendance are all influenced, both positively and negatively, by weather conditions. Warmer, drier conditions may increase the likelihood of forest fires, but may also result in more people going camping and visiting beaches. Cold, harsh winter conditions may

prevent insects that could harm the forests from over-wintering, while warmer, milder conditions could allow insect populations to survive the winter. Ecosystems may also be affected, resulting in changes in wildlife habitat and native species health (both positive and negative impacts) and the possible introduction of exotic pests (non-native wildlife). More frequent and more intense storms will increase the likelihood of damage to department infrastructure, such as park facilities, trails and fire towers. These storms, plus prolonged periods of drought, may also negatively affect our forest resources due to blowdown and reduced growth rates.

3.5 Internal Operations

Since the mid-1990s there has been a deterioration in many of the assets that make up the department's infrastructure. Infrastructure includes our fleet of vehicles, helicopters, buildings, parks facilities and equipment. It is a continuing challenge to purchase replacement equipment when needed, to maintain existing equipment as required, and to develop new park and trail facilities and maintain existing parks and trails to acceptable standards. As well, few investments have been made in technology to manage land transactions or land records. As a result, information is housed in a myriad of separate databases and access to this information is sometimes difficult and time consuming.

Our staff are also critical for us to be able to deliver our programs and services. The department, like many other employers, will be experiencing a large staff turnover in the next decade as older employees retire. As a result, succession planning and employee recruitment and retention will be a significant challenge in the upcoming years as the department seeks to replace departing employees with new staff who possess the skills sets needed in the future.

3.6 Changing Nature of the Resource Industries

Nova Scotia is part of the global economy and our resource industries cannot escape what is happening nationally and internationally. Changes are inevitable and have already been occurring.

There are possibilities for new products and uses from our forests. A move to a "paperless" society could result in a decline in the demand for pulp and paper, however the production of biomaterials and biofuels may become established as future wood uses. There may also be innovative new ways that wood can be used, such as in engineered products. Finally, there is a greater recognition of the many non-timber products and values derived from our forests.

Minerals and metals are essential for the products and infrastructure necessary for a modern society. An endowment of mineral and metal deposits, access to land, regulatory efficiency and incentives for investment in exploration and development are key ingredients for a healthy minerals sector.

4 Strategic Goals

The department has identified four strategic goals that it is focusing on for the medium term which, within the context of business planning used here, can be viewed as a three to five year time frame.

The department's goals are to:

- increase awareness and understanding of sound natural resources management principles and practices;
- continuously improve departmental strategies for managing natural resources and Crown land;
- improve internal departmental planning processes and management systems; and
- improve the department's work environment and the capacity of staff to deliver departmental programs and services.

5 Core Business Areas

Core business areas are collections of individual programs whose results and outcomes are fundamental to meeting the department's strategic goals and carrying out its mandate. The department can be organized into three core business areas and all activities can be allocated to one of these core business areas. The three core business areas are:

- Natural Resources Management;
- Crown Lands Administration; and
- Infrastructure and Support Services.

The department manages natural resources on an integrated basis. Relationships between resource uses and the effects of management practices of one resource on other resources are

taken into account when resource management decisions are being made. The department has responsibility for aspects of the management of natural resources on both Crown land and on private land. Individual resources, such as forests, wildlife, minerals and parks, are all part of the Natural Resources Management core business area which is consistent with our integrated approach to the management of the natural resources falling in the department's areas of responsibility.

The second core business area, Crown Lands Administration, covers the department's land related activities, which are independent of the resources on the land. Activities related to acquisitions, disposals and leases are included in this core business area.

The final core business area is Infrastructure and Support Services. This core business area is mainly (but not entirely) made up of the internal activities used to support the first two core business areas, which are externally focused.

The department's website, www.gov.ns.ca/natr, provides an extensive amount of additional information on the department's programs and services.

5.1 Natural Resources Management

Natural Resources Management covers the department's broad responsibilities relative to the development, management, conservation, use and protection of forest, mineral, park and wildlife resources.

Forestry responsibilities, on both Crown and private lands, include forest management planning and research, developing and implementing strategies that support and contribute to sustainable forests, maintaining the provincial forest inventory, producing data on the province's forest resources, monitoring primary forest production and coordinating extension programs and support for industry development.

On private lands, the department leverages expenditures on silvicultural activities by providing a portion of the funding. DNR also provides technical and professional assistance and information, supports the construction of forest access roads, and monitors for compliance with regulatory requirements related to forest harvesting and forest management.

On Crown lands, the department administers the licensing of land for timber and other resource uses. Funding is provided to invest in silviculture in order to work towards forest sustainability, and a network of access roads on Crown lands is maintained. Protection-related responsibilities include the development and delivery

of programs designed to protect Nova Scotia forests from fire, insects and disease, and to protect special sites, watercourses and significant wildlife habitats.

Mineral responsibilities include the implementation of policies and programs dealing with exploration, development, management and responsible use of geological resources. The department promotes scientific understanding of the geology of Nova Scotia for use by government, industry and the public, maintains databases of geoscientific information, tracks mineral production, monitors compliance with regulatory requirements, administers mineral royalties and the provincial mineral rights tenure system, coordinates interdepartmental regulatory reviews of mineral development projects, operates an abandoned mine opening remediation program and provides professional assistance and advice with respect to our mineral resources and provincial geology.

Studies undertaken to understand and explain the province's geology help to document the province's mineral endowment and define the potential for new mineral resources. These programs also provide needed information to support sound public policy decisions in areas such as mineral resource development, environmental protection, land use and public health and safety.

Park responsibilities include the planning, design, development and operation of over 120 camping and day-use parks and natural area parks and park reserves, in addition to supporting facilities on Crown lands, various trails and other outdoor recreational opportunities and, through partnerships with community groups, on private lands. Parks and recreation programs and services provide quality recreational experiences to Nova Scotians and visitors to the province, while ensuring environmental, heritage and resource protection.

Wildlife responsibilities include research, development and delivery of programs, policies and legislation for the management and conservation of the province's wildlife resources and their habitats, including endangered species initiatives. Information on wildlife populations and their habitat is collected in order to obtain the scientific information required for sound decision-making. This also includes the provision of educational and viewing opportunities at the provincial wildlife park in Shubenacadie.

Enforcement responsibilities include the development, coordination and operation of a departmental resource law enforcement and compliance program, which also provides enforcement services to Fisheries and Aquaculture, the protected areas program within Nova Scotia Environment (NSE) and the Canadian Wildlife Service.

Off-highway vehicles related enforcement activities are also the responsibility of the department.

5.2 Crown Lands Administration

This core business area covers the department's activities related to the administration of the province's Crown lands. Nova Scotia's land mass is approximately 12 million acres, of which about 3.5 million acres are administered and controlled by DNR. A portion of these lands (approximately 600,000 acres) are protected areas which are managed on behalf of NSE. Submerged lands along the approximately nine thousand kilometres of coastline in the province are also considered Crown land, and are managed by DNR.

Crown Lands Administration encompasses the acquisition, leasing and disposal of interests in Crown lands, reconciliation of interests in Crown lands, registration of Crown land titles, authorization of surveys of Crown boundaries, oversight of Crown boundary line maintenance, control and management of Crown lands records, and development and maintenance the Crown lands Geographic Information System (GIS) cadastral database. Responsibilities also include the development and administration of policies related to economic development on Crown land, including tidal and wind power generation, agricultural development, peat harvesting, communications and broadband infrastructure, and activities in the coastal zone and offshore.

Approximately 20 land-related statutes are administered by the department, as well as the provision of land-related services to other departments, such as land administration and designations for Environment, and activities undertaken in partnership with non-government conservation oriented organizations aimed at securing ecologically significant lands.

5.3 Infrastructure and Support Services

Infrastructure responsibilities include the maintenance and replacement of a fleet of hundreds of highway and specialized vehicles (fire trucks, snowmobiles, gators, ATVs and tractors, etc.), as well as the operation and maintenance of a fleet of five helicopters. The road vehicles are heavily used in almost every aspect of the department's program delivery and provide a range of capabilities, from staff transportation to heavy equipment operations. Helicopter uses include forest fire detection and suppression, ground search and rescue and natural resource research and management. The DNR fleet (particularly helicopters) plays an important role

in the province's emergency preparedness planning. Department facilities range from offices and depots, to pole barns, aircraft hangars, fire towers and laboratories.

Central support services[1] includes some aspects of information technology, financial, communications, planning, asset management, risk management, information and records management, office administration, library services and the Office of the Minister and Deputy Minister.

As the host department for the Resources Corporate Services Unit, financial and some information technology services are provided to the other provincial resource departments, which are Agriculture, Fisheries and Aquaculture, Environment, and Energy. Several other departments (Finance, Labour and Workforce Development, and the Public Service Commission) and numerous agencies (including Treasury Board, the Office of Aboriginal Affairs, Communications Nova Scotia, Conserve Nova Scotia, the Emergency Management Office, the Office of the Auditor General, the Voluntary Planning Board and the Legislative House of Assembly), also receive certain support services from the Resources Corporate Services Unit. As a result, substantial expenditures reported as part of the department's budget are used to provide services and support for the programs and services of other departments and agencies.

6 Priorities and Performance Measures

For 2009-10, the department will concentrate on several key, high-level strategic priorities that may ultimately lead to some significant changes in how the department operates during the next decade and in how the department carries out its responsibilities. Several of the priorities are multi-year in nature and have spanned, or will span, several fiscal years.

Measures are provided for each goal and are presented at the end of the section that lists the priorities for a particular goal. The measures provided are intended to measure outcomes achieved and they directly support the achievement of specific departmental goals.

The priorities presented in the following sections are in addition to the department's many ongoing activities that staff carry out on an annual basis. These ongoing activities take a substantial portion of the department's effort and resources each year.

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[1] In 2009-10 funding for some information technology related services was transferred to the Chief Information Officer Branch of Treasury Board.

6.1 Increase Awareness and Understanding of Sound Natural Resources Management Principles and Practices

Natural resource users need to be able to make informed decisions on natural resource use. The department is responsible for providing resource users with direction and guidance on their responsibilities and obligations as resource users in the province. Nova Scotians in general should have an understanding of what our natural resources are, what encompasses sound natural resources management, and how natural resources and Crown land are managed. The public should be able to trust the department and have confidence that efforts are being made to carry out natural resource management in a sustainable manner, using science-based decisions. It is important for Nova Scotians to understand and appreciate the significant benefits that are derived from these natural resources.

6.1.1 Stewardship and Outreach

The department monitors the way it communicates to both its constituents and the general public. Aspects of the communications process that are considered include: audience awareness/interest in natural resource topics, the perception of department initiatives, audience information requirements, internal communications, as well as updating existing communications, messaging, and branding strategies. It is important to periodically survey the public to obtain an understanding of how they view the department's performance and to be able to determine the areas where improvements are desired.

The department has a large amount of technical and science-based information. In order to be good land stewards, it is necessary to continue to review and update this information, distribute it, and have the expertise to interpret it and explain it to others.

Planned activities for 2009-10 include:

- undertaking a public opinion survey to obtain the level of public satisfaction with the department's performance and the level of awareness of the process used by the department to manage Crown land.

- releasing a new provincial parks marketing and promotional "brand" identity which will better describe the connection visitors feel with our parks system, the special experiences they enjoy, and the quality and diversity of our Nova Scotian provincial parks system. This will help to generate socioeconomic

value for the province by provide and promoting a framework for parks-based outdoor recreational activities.

- developing and releasing a comprehensive series of mineral potential maps for the entire province based on: mineral occurrence data (including metallic minerals, industrial minerals, coal, aggregate and peat), past exploration and mining activity, and favourable geological environments. These science-based map products will highlight mineral potential for land-use planning, including the evaluation of candidate wilderness areas to meet the *Environmental Goals and Sustainable Prosperity Act*'s goal of protecting 12% of the province's land mass, and supporting economic development throughout the province. Results of the project will be communicated to department staff, staff in other departments, stakeholders and the public.

- redrafting and updating the *Land Surveyors Act*, in conjunction with the Association of Nova Scotia Land Surveyors, in time for introduction in the 2010 spring sitting of the legislature. The Association of Nova Scotia Land Surveyors, which oversees all surveyors in the province, has undertaken a complete review of the *Land Surveyors Act* and Regulations. Oversight of the Act is the responsibility of the Minister of Natural Resources.

Goal - Increase Awareness and Understanding of Sound Natural Resources Management Principles and Practices					
Outcome	**Measure**	**Base Year**	**Target 2009-10**	**Ultimate Target**	**Strategic Actions**
Effective and Efficient Service to the Public	Level of Public Satisfaction with Overall Performance of the Department (% rating performance as very good or excellent) [2]	63% (2005-06)	65% (2009-10)	65% (2009-10)	Promote consistent department identity. Provide customer service and stakeholder engagement training to staff. Develop new relationships with stakeholders through consultation.

[2] The 2005-06 results were from a survey of a representative sample of 400 Nova Scotians conducted between mid-February 2006 and mid-March 2006 on behalf of DNR. This is a periodic survey that is not conducted annually. The next survey is expected during 2009-10.

Goal - Increase Awareness and Understanding of Sound Natural Resources Management Principles and Practices					
Outcome	**Measure**	**Base Year**	**Target 2009-10**	**Ultimate Target**	**Strategic Actions**
Public Awareness of Crown Land Management	Level of Public Awareness of Process in Place to Manage Crown Land (% that know a process is used) [3]	61% (2005-06)	65% (2009-10)	65% (2009-10)	Implementation of new website for IRM.
Knowledgeable Teachers and Youth	Number of teachers, students and community group members receiving natural resources stewardship related training (thousands)	10.8 (2005-06) 11.3 (2006-07) 13.4 (2007-08) 12.8 (2008-09)	18.0 (2009-10)	18.0 (2009-10)	Provide in-service and professional development work shops for teachers. Promote educational programs. Work with Ducks Unlimited to provide a wetlands educational experience.

6.2 Continuously Improve Departmental Strategies for Managing Natural Resources and Crown Land

The department has broad responsibilities relating to the development, management, conservation and protection of the province's forest, mineral and wildlife resources, the operation of the provincial parks system and the administration of the province's Crown land. Numerous acts, regulations, strategies, policies, procedures and guidelines are in place to provide rules, processes, and guidance for the department when carrying out these responsibilities. It is a continual challenge to develop new strategies and to keep existing strategies up-to-date and relevant.

6.2.1 Natural Resources Strategy Development

On May 1, 2007, government announced that work would begin on the development of a comprehensive natural resources strategy covering forests, minerals, parks and biodiversity. This strategy will determine the priorities and direction for government actions necessary for the management of the resources covered by the strategy and the programs, services and activities related to their management. The ultimate result will be a policy framework that supports sustainable natural resource management, the conservation of a healthy natural environment and current and new economic opportunities linked to these resources.

[3] See previous footnote.

The natural resources strategy is being prepared using a three-phase approach, with the final strategy scheduled for completion in 2010. In the initial phase, which took place during 2008, an independent citizen committee appointed through Voluntary Planning led citizens in discussions to lay the foundation and define the public values for a long-term natural resources strategy. During this phase five key themes emerged, which were sustainability, diversity, collaboration, transparency and informed decision making.

Information gathered through the public engagement phase is being used in Phase 2 of the development of a natural resources strategy. In this second phase, independent panels will conduct a more detailed analysis of the Voluntary Planning project committee findings and will carry out stakeholder consultations. The development of the actual long-term strategy will occur in Phase 3 using (among other resources) the findings from Phases 1 and 2.

Planned activities for 2009-10 include:

- providing support and funding for external panels to carry out the technical expertise consultations of Phase 2.
- making all necessary arrangements and preparations so that Phase 3 is ready to proceed immediately when Phase 2 is completed.
- communicating project information to department staff, other departments, stakeholders and the public.
- proceeding with the third and final phase of the process, which is the preparation of the natural resources strategy, with an expected completion in 2010.

6.2.2 *Environmental Goals and Sustainable Prosperity Act*

The *Environmental Goals and Sustainable Prosperity Act* (EGSPA), passed in April 2007, commits the government to achieving 21 specific environmental and economic goals. Several goals are of particular relevance to the department. DNR will be working with NSE and other departments to:

- establish a policy of preventing net loss of wetlands by 2009;
- develop a comprehensive water-resource management strategy by 2010;

- adopt strategies to ensure the sustainability of the Province's natural capital in the areas of forests, minerals, parks and biodiversity by 2010;

- develop renewable energy sources to meet eighteen and one-half per cent of electricity needs by 2010; and

- legally protect twelve per cent of the total land mass of the Province by 2015.

The development of a natural resources strategy was discussed in the previous section. Department staff are actively involved in work needed to successfully achieve the other goals listed above. Planned activities for 2009-10 related to the attainment of government's EGSPA goals include:

- organizing provincial groundwater information in a centralized spatial database and developing preliminary groundwater budgets for primary watersheds throughout the Province. This work is required to obtain a better understanding of provincial groundwater resources and to provide necessary information for the development of an effective water-resource management strategy.

- continuing to work on a sample-based project to obtain an accurate and statistically valid figure for the area and types of wetlands in the province using satellite and air photo interpretation and mapping techniques. Knowing the amount, types and distribution of wetlands currently available is essential for successfully implementing a policy to prevent net loss of wetlands and to regularly report on its efficacy. Since the area of wetlands will be influenced by climate change, this project will also support the department's climate change analysis work by providing baseline data which can be used to detect changes.

- working to meet the target of 12% for land under protection, in collaboration with NSE and other external organizations. This will include partnering with NSE to develop a conceptual plan to identify possible protected areas, developing a five-year funding plan to permit the acquisition of land needed to meet the 12% of land under protection target and to provide land for mitigation as a result of Crown land being allocated for protection, setting aside Crown land for new wilderness areas, carrying out the surveying, mapping and administrative activities necessary to protect land, and acquiring additional land for protection.

- working with the Department of Energy to study the potential of energy production from tides in the Bay of Fundy and on the Atlantic coast as a means of achieving the goal of obtaining 18.5% of the province's total electricity needs from renewable energy sources by 2013.

- revising the wind energy policy to make the application process more streamlined and the requirements more clearly defined in order to facilitate the submission of project applications and to help government in achieve its renewable energy and environmental goals.

6.2.3 Climate Change Analysis

Climate can be viewed as the average weather over an extended period of time for a given geographic location or region. Weather conditions are measured by parameters such as temperature (high, low and average), precipitation and wind. Climate change can be viewed as a long-term shift in the climate of a specific location.

Climate change in Nova Scotia could result in more frequent and intense storms, sea level rise, higher rates of coastal flooding and erosion, changes in minimum and maximum temperatures, changes in season lengths and differences in precipitation levels and intensity.

Planned activities for 2009-10 include:

- participating, with Nova Scotia Environment, on the Conference Board of Canada's Leaders' Roundtable on Climate Change Adaptation. This will provide an opportunity to interact with key stakeholders to discuss potential climate change adaptation options, policies and programs.

- completing a biomass harvesting and retention policy, which will support for sustainable forest management in the province.

- working, through the Council of Canadian Forest Ministers, to complete an assessment of the impact of climate change on forest ecosystems and on forest-dependent industries.

- mapping the susceptibility of the central Antigonish Area to hazards such as coastal erosion, submergence and flooding. This work will identify the areas that are at highest risk for damage by major storm events and sea level rise

6.2.4 Forest Industry Transition Support

The forest products industry in North America has been going through significant structural changes. Almost all product segments are not operating profitably and this is not likely to change in the near future. A number of significant permanent and temporary plant closures have been announced across Canada which have reduced capacity in the industry. The shocks to the US housing and mortgage markets and the ongoing strength of the Canadian dollar relative to the US dollar has reduced the competitive position of Canadian forest products in the United States market. This continues to dampen any prospects for recovery of the industry in Canada.

On October 12, 2007 the Province announced a new program to invest in woodlot silviculture and support a number of other forest-related initiatives so the forest industry in the province can transition to a more stable position. Funding was provided for several initiatives and a Joint Government-Industry Task Force was established to investigate other possible options that could be added to the transition program.

Planned activities for 2009-10 include:

- providing additional funding of $300,000 for the Forest Operators Assistance Program for forest road construction (a total of $900,000 over a three year period beginning in 2007-08 and ending in 2009-10).

- providing funding for programs delivered by the Forest Safety Society (a total of $210,000 over a three year period beginning in 2007-08 and ending in 2009-10).

- working with forestry companies to purchase $4 million in surplus forestry lands. This includes participating on the Forestry Transition Program (FTP) Steering Committee, evaluating applications, assessing the lands, appraising and negotiating selling prices, and preparing required documents.

- continuing to implement other initiatives that were identified by the Government Industry Task Force action plan.

- working with the federal government to invest in our forests and our rural communities by providing silviculture assistance aimed primarily at small woodlots of less than 2,000 hectares. This investment will be used to strengthen forest and environmental management and will also help to create

jobs and maintain employment as a result of the silviculture work to be carried out.

6.2.5 Off-highway Vehicle Program

The department has a number of responsibilities related to off-highway vehicles (OHV). These include approving OHV safety training programs and instructors, regulating protective equipment, setting age restrictions and requirements for closed courses training for children and youth, approving appointments to the Off-highway Vehicles Ministerial Advisory Committee (OHVMAC), approving Off-highway Vehicle Infrastructure Fund expenditures, designating trails, regulating permit fees and vendors and carrying out OHV-related enforcement activities.

Planning activities for 2009-10 include:

- partnering with other departments and the OHVMAC to monitor OHV related legislation and policies;
- acting as the Secretariat to the OHVMAC; and
- managing revenue transfers to the OHV Infrastructure Fund and expenditures transfers for trail development projects, funding for OHV related organizations and other OHV related projects and initiatives from the Fund.

Goal Continuously Improve Departmental Strategies for Managing Natural Resources and Crown Land					
Outcome	**Measure**	**Base Year**	**Target 2009-10**	**Ultimate Target**	**Strategic Actions**
Effective Management of Resource Supply	Percentage of required value of silviculture on private and industrial lands completed [4]	140% (2006) 119% (2007) 105% (2008)	100% (2009)	100% (2010)	Analyze wood supply requirements. Administer audit, monitoring and compliance programs. Operate the Registry of Wood Buyers

[4] This measure is calculated on a calendar year basis. Historical data is provided in DNR's accountability reports, which are available electronically on the DNR website at http://www.gov.ns.ca/natr/businessplan/default.htm#account.

Goal Continuously Improve Departmental Strategies for Managing Natural Resources and Crown Land					
Outcome	**Measure**	**Base Year**	**Target 2009-10**	**Ultimate Target**	**Strategic Actions**
Species Diversity	Percentage of endangered and threatened species with recovery plans in place (as of March 31) [5]	74% (2006) 89% (2007) 94% (2008)	100% (2010)	100% (2010)	Create Recovery Teams for listed species. Provide support and resources for the development of recovery plans
Conservation of Ecosystem Function	Percentage compliance with *Wildlife Habitat and Watercourses Protection Regulations* under the *Forests Act* [6]	29% (2004-05) 26% (2007-08)	not applicable (no full survey planned)	90% (2010-11)	Promote requirements of regulations and provide educational materials. Monitor compliance with regulations.

6.3 Improve Internal Departmental Planning Processes and Management Systems

Initiatives that support this goal relate to internal departmental planning and the collection of information needed to make sound decisions for effective operations, for setting future priorities and for providing high-quality programs and services.

6.3.1 Support for Corporate / Other Government Initiatives

There are a number of government-wide corporate initiatives that the department participates in, as well as several initiatives by other departments that the department is involved in. Examples include:

- Better Regulation Initiative. This is a government-wide initiative that is intended to make Nova Scotia a more business-friendly location through the

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[5] The *Endangered Species Act* requires that recovery plans must be in place one year after listing for endangered species and two years after listing for threatened species. Historic data is provided in DNR's accountability reports, which are available electronically on the DNR website at http://www.gov.ns.ca/natr/businessplan/default.htm#account.

[6] This measure is calculated based on the results of intensive monitoring of forest harvesting sites which takes place at three-year intervals. The most recent monitoring was in 2007-08. Inspections occur each year as required.

reduction and avoidance of red tape, while at the same time ensuring that regulations continue to protect the public, the environment and our communities.

- French-language Services. The *French-language Services Act*, was proclaimed in December 2004. Regulations were also developed that came into effect the end of December 2006. These regulations provide direction to designated public institutions in a number of areas related to the provision of French-language services, providing government information in French, and communicating with the Acadian community and francophones.

- Business continuity planning. This is is a pro-active planning process used to ensure the continued availability of essential programs and services in the event of a disruption caused by either humans or nature, and to allow a return to normal operations.

- Heritage Strategy implementation. The first provincial heritage strategy was released in February 2008 and provides three directions for the protection, management and development of the province's rich and diverse heritage resources. The directions are: better coordination among those with a responsibility for heritage, sustainable development of heritage resources, and increasing public recognition of heritage.

Planned activities for 2009-10 include:

- undertaking a review and revision of various land-related policies to ensure that they meet the requirements of the regulatory management policy and that they provide applicants with a streamlined process and application information.

- identifying opportunities to expand the department's capacity to deliver French-language services and to make information available in French.

- reviewing the department's current business continuity management program and updating and enhancing the business continuity plan.

- identifying opportunities to increase awareness of natural heritage values and to better coordinate the management of our natural heritage, including our underwater cultural heritage.

6.3.2 Mineral and Petroleum Titles Registry Modernization

The Mineral and Petroleum Titles Registry manages the province's mineral tenure management systems. Functions of the Registry include granting licences and leases to mineral rights applicants, keeping records of mineral rights disposition in the province, issuing licences, leases, notifications, releases and other documents related to the province's mineral tenure system and tracking expenditures reported by mineral rights holders. A significant modernization project began in 2006-07 with the development and issuing of a Request for Proposals for the design, development, testing, and implementation of an Automated Integrated Mineral and Petroleum Rights Registry. Department staff have worked with the successful proponent for the last two years to build this specialized system as work has proceeded slower than expected.

Planned activities for 2009-10 include:

- continuing work on the aspects of the system needed to implement Phase 1 of the project, which will provide electronic access to the Registry from the department's head office location. When completed, users will have access to maps and records that were previously available only on paper.

- continuing to work on the aspects of the system needed to implement Phase 2 of the project, which will provide Registry users with the ability to make Internet-based submissions (with around the clock availability of the system), eliminating the need to travel to, and make submissions at, the department's head office location.

6.3.3 Land Services Renewal Project

This initiative is focused on streamlining Land Services business processes and developing an integrated technology application to support business processes, reduce backlogs and allow staff to work more effectively.

Planned activities for 2009-10 include:

- establishing a project office to provide overall project leadership, planning and management;

- creating overall project plan, including identifying costs and time lines for project completion; and

- planning and beginning work on the consolidation of databases, reviewing GIS and map data, and developing a record management solution.

6.4 Improve the Department's Work Environment and the Capacity of Staff to Deliver Programs and Services

Our staff are critical for delivering the public services provided by this department. A large number of staff are eligible to retire in the next five years. The department must take steps to ensure that we are able to attract, develop and maintain a complement of dedicated public servants that is representative of our communities and that has the knowledge and skill sets needed to enable the department to continue to meet our mandate. A separate section (Section 8) is provided in the business plan to describe the human resources related initiatives that will be undertaken in 2009-10. To maintain consistency with the previous departmental goals, the performance measures for the goal of improving the department's work environment and the capacity of staff to deliver programs and services will be reported in this section.

Goal Improve the Department's Work Environment and the Capacity of Staff to Deliver Programs and Services					
Outcome	**Measure**	**Base Year**	**Target 2009-10**	**Ultimate Target**	**Strategic Actions**
Safe Staff and Workplaces	Percent of employees who somewhat agree or strongly agree that the department creates a safe work environment [7]	78% (2004) 89% (2007) 88% (2009)	no survey scheduled to take place	89% (2011)	Work to improve in the areas identified in the 2006 audit as needing further attention.
Knowledgeable Staff	Percent of employees who somewhat agree or strongly agree that they have access to training opportunities [8]	74% (2004) 86% (2007) 83% (2009)	no survey scheduled to take place	86% (2011)	Maintain training and staffing plans for each branch.

[7] All permanent civil servants were included in an employee survey conducted by the Public Service Commission in February 2004. A survey was undertaken in March 2007 with another survey completed in March 2009. The ultimate target is being set for 2011 when another complete survey will be conducted late in the 2010-11 fiscal year.

[8] See previous footnote.

7 Human Resources Strategy

In response to the survey of staff within government that took place in 2004, as well as to support the Nova Scotia Corporate Human Resources Plan, a Human Resources Framework was prepared for use in the department (and the other Resources Corporate Services Unit departments and client groups). This was a comprehensive framework that plays a vital role in the achievement of the department's overall strategic goals and objectives. The framework is divided into three sections: recruitment and retention, training and development, and occupational health and safety.

Work teams have been created in the department covering the areas of recruitment and hiring, rewards and recognition, diversity and respectful workplaces, and career and succession management. Senior management representatives have been appointed as champions to lead each work team.

Planned activities for 2009-10 include:

- reviewing the findings of the How's Work Going survey, which was conducted in March 2009, in order to identify areas of strength to build on and areas of weakness where improvements can be made.

- establishing a departmental diversity committee and developing overall strategy for increasing diversity and creating a more respectful work environment, as well as designing, organizing, and delivering a workshop on cultural awareness for department staff.

- developing and implementing initiatives in each of the four human resources related areas identified above.

8 Budget Context

The following table provides budget information for the department for 2008-09 and for 2009-10. The department's gross budget for 2009-10 is $92.9 million ($91.4 million net of chargeables to other departments). This is an increase of $3.8 million, or 4.3%, from the previous year. Program areas where there were budget reductions or program changes that resulted in budget reductions included:

- a transfer of IT related costs, salaries and operating expenses from the Resources Corporate Services Unit as a result of the centralization of IT service delivery;

- private land silviculture spending and silviculture funded from the Forestry Transition Program;
- savings from vacant and eliminated positions, general savings, and operating efficiencies.

Program areas where there were budget increases or program changes that resulted in budget increases included:

- forest access road construction;
- Crown land silviculture spending;
- funding for the natural resources strategy;
- funding to cover the increased costs of leased facilities;
- salary and benefit settlements;
- adjustments in amortization related to TCA funding;
- a transfer of the Department of Health Promotion and Protection's (HPP) off-highway vehicle related responsibilities to Natural Resources;
- additional funding for the gross up of ACOA funding for silviculture ($3.5 million is 100% recoverable); and
- funding from the Community Development Trust for various projects and initiatives.

The tangible capital asset budget increased by over $73 million to almost $77 million. TCA funding will be used primarily for land acquisitions but will also be used for improvements at various parks throughout the province and the purchase of vehicles needed for the department's operations.

The estimate for the number of provincially funded staff fell by 19 full-time equivalents (FTEs) from 2008-09 to 2009-10. There was an increase of 10 FTEs from the conversion of some seasonal / casual positions to permanent positions and the transfer of HPP's OHV-related responsibilities to the department. However this increase was more than offset by the transfer of 29 IT-related FTEs to the CIO Office.

Department of Natural Resources - Budget Context			
	2008-09 Estimate	**2008-09 Actual**	**2009-10 Estimate**
Program and Service Area	**$ Thousands**	**$ Thousands**	**$ Thousands**
Gross Departmental Expenses:			
Senior Management	479	504	446
Corporate Services Unit [9]	7,050	6,887	4,845
Renewable Resources	12,771	16,332	16,215
Mineral Resources	3,691	4,041	3,800
Regional Services	57,421	58,955	58,960
Planning Secretariat	4,552	4,889	5,422
Land Services	3,162	3,246	3,232
Total - Gross Expenses	89,126	94,854	92,920
Chargeable to Other Departments	(4,488)	(8,025)	(1,471)
Total - Program Expenses	84,638	86,829	91,449
TCA Purchase Requirements	3,500	3,377	76,950
Provincially Funded Staff (# of FTE)	864	828	845

[9] The Corporate Services Unit figures include the cost of financial and information technology services provided to a number of other departments and agencies. The estimate for 2009-10 fell as a result of the transfer of the budget related to IT service delivery to the CIO Office.